

IN THE CLAIMS:

1. (Currently Amended) A method of eliciting an antitumor effect in vivo comprising the steps of:

identifying a species representative of a treatment subject;

identifying at least one non-coding nucleic acid sequence non-native to of the species, wherein the non-coding nucleic acid sequence does not code for a therapeutic protein;

introducing the at least one non-coding nucleic acid to at least one tumor cell in the treatment subject; and

applying energy from an energy source to the nucleic acid at least one tumor cell, the application of the energy effective in eliciting an antitumor effect at least one nucleic acid.

2. (Currently Amended) The method of claim 1 wherein the energy source ~~comprises~~ is an electrical energy source output.
3. (Withdrawn) The method of claim 1 wherein the energy source comprises sonic output.
4. (Withdrawn) The method of claim 1 wherein the energy source comprises photonic output.
5. (Withdrawn) The method of claim 1 wherein the energy source comprises microwave output.
6. (Currently Amended) The method of claim 1 wherein the step of applying energy from an energy source, further comprises making is adapted to make permeable at least one cell in the at least one tumor permeable.
7. (Currently Amended) The method of claim 6 2 wherein the electrical energy source is an electrical source having and applied in a strength between 100 to 5,000 volts per centimeter.
8. (Currently Amended) The method of claim 6 2 wherein the electrical energy source is an electrical energy source comprising emits a plurality of electrical pulses to achieve cell permeability.
9. (Currently Amended) The method of claim 1 wherein the step of introducing the at least one non-coding nucleic acid to at least one tumor cell in the treatment subject comprises injecting the nucleic acid into extracellular space coincident to the at least one tumor.
10. (Currently Amended) The method of claim 1 wherein the step of introducing the at least one non-coding nucleic acid to at least one tumor cell in the treatment subject comprises jet injecting the nucleic acid into extracellular space coincident to the at least one tumor.

11. The method of claim 1 further comprising the step of substantially simultaneously introducing a second nucleic acid sequence that codes for a therapeutic molecule.